



A-686B.ST25.txt
SEQUENCE LISTING

<110> THEILL, LARS EYDE
YU, GANG

<120> METHODS AND COMPOSITIONS OF MATTER CONCERNING APRIL/G70, BCMA, BLYS/AGP-3,
AND TACI

<130> A-686B

<140> US 09/854,864
<141> 2001-05-14

<150> US 60/204,039
<151> 2000-05-12

<150> US 60/214,591
<151> 2000-06-27

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<170> PatentIn version 3.1

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20 25 30

Thr Gln Gln Thr Glu Leu Gln Ser Leu Arg Arg Glu Val Ser Arg Leu
35 40 45

Gln Gly Thr Gly Gly Pro Ser Gln Asn Gly Glu Gly Tyr Pro Trp Gln
50 55 60

Ser Leu Pro Glu Gln Ser Ser Asp Ala Leu Glu Ala Trp Glu Ser Gly
65 70 75 80

Glu Arg Ser Arg Lys Arg Arg Ala Val Leu Thr Gln Lys Gln Lys Lys
85 90 95

Gln His Ser Val Leu His Leu Val Pro Ile Asn Ala Thr Ser Lys Asp
100 105 110

Asp Ser Asp Val Thr Glu Val Met Trp Gln Pro Ala Leu Arg Arg Gly
115 120 125

Arg Gly Leu Gln Ala Gln Gly Tyr Gly Val Arg Ile Gln Asp Ala Gly
130 135 140

Val Tyr Leu Leu Tyr Ser Gln Val Leu Phe Gln Asp Val Thr Phe Thr
145 150 155 160

Met Gly Gln Val Val Ser Arg Glu Gly Gln Gly Arg Gln Glu Thr Leu
165 170 175

Phe Arg Cys Ile Arg Ser Met Pro Ser His Pro Asp Arg Ala Tyr Asn
180 185 190

Ser Cys Tyr Ser Ala Gly Val Phe His Leu His Gln Gly Asp Ile Leu
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<400> 4

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1 5 10 15

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20 25 30

Val Thr Cys Ala Val Ala Leu Ile Gln Gln Thr Glu Leu Gln Ser
35 40 45

Leu Arg Arg Glu Val Ser Arg Leu Gln Arg Ser Gly Gly Pro Ser Gln
50 55 60

Lys Gln Gly Glu Arg Pro Trp Gln Ser Leu Trp Glu Gln Ser Pro Asp
65 70 75 80

Val Leu Glu Ala Trp Lys Asp Gly Ala Lys Ser Arg Arg Arg Ala
85 90 95

Val Leu Thr Gln Lys His Lys Lys His Ser Val Leu His Leu Val
100 105 110

Pro Val Asn Ile Thr Ser Lys Asp Ser Asp Val Thr Glu Val Met Trp
115 120 125

Gln Pro Val Leu Arg Arg Gly Arg Gly Leu Glu Ala Gln Gly Asp Ile
130 135 140

Val Arg Val Trp Asp Thr Gly Ile Tyr Leu Leu Tyr Ser Gln Val Leu
145 150 155 160

Phe His Asp Val Thr Phe Thr Met Gly Gln Val Val Ser Arg Glu Gly
165 170 175

Gln Gly Arg Arg Glu Thr Leu Phe Arg Cys Ile Arg Ser Met Pro Ser
180 185 190

Asp Pro Asp Arg Ala Tyr Asn Ser Cys Tyr Ser Ala Gly Val Phe His
195 200 205

Leu His Gln Gly Asp Ile Ile Thr Val Lys Ile Pro Arg Ala Asn Ala
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Lys Leu Ser Leu Ser Pro His Gly Thr Phe Leu Gly Phe Val Lys Leu
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<211> 181
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<213> Homo sapiens

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20 25 30

Thr Cys Gln Arg Tyr Cys Asn Ala Ser Val Thr Asn Ser Val Lys Gly
35 40 45

Thr Asn Ala Ile Leu Trp Thr Cys Leu Gly Leu Ser Leu Ile Ile Ser
50 55 60

Leu Ala Val Phe Val Leu Met Phe Leu Leu Arg Lys Ile Ser Ser Glu
65 70 75 80

Pro Leu Lys Asp Glu Phe Lys Asn Thr Gly Ser Gly Leu Leu Gly Met
85 90 95

Ala Asn Ile Asp Leu Glu Lys Ser Arg Thr Gly Asp Glu Ile Ile Leu
100 105 110

Pro Arg Gly Leu Glu Tyr Thr Val Glu Glu Cys Thr Cys Glu Asp Cys
115 120 125

Ile Lys Ser Lys Pro Lys Val Asp Ser Asp His Cys Phe Pro Leu Pro
130 135 140

Ala Met Glu Glu Gly Ala Thr Ile Leu Val Thr Thr Lys Thr Asn Asp
145 150 155 160

Tyr Cys Lys Ser Leu Pro Ala Ala Leu Ser Ala Thr Glu Ile Glu Lys
165 170 175

Ser Ile Ser Ala Arg
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<210> 6
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<213> Homo sapiens

<400> 6

Met Ala Gly Gln Cys Ser Gln Asn Glu Tyr Phe Asp Ser Leu Leu His
1 5 10 15

Ala Cys Ile Pro Cys Gln Leu Arg Cys Ser Ser Asn Thr Pro Pro Leu
20 25 30

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Thr Cys Gln Arg Tyr Cys Asn Ala Ser Val Thr Asn Ser Val Lys Gly
35 40 45

Thr Asn Ala
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<210> 7
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<213> Homo sapiens

<400> 7

Cys Ser Gln Asn Glu Tyr Phe Asp Ser Leu Leu His Ala Cys Ile Pro
1 5 10 15

Cys Gln Leu Arg Cys Ser Ser Asn Thr Pro Pro Leu Thr Cys Gln Arg
20 25 30

Tyr Cys

<210> 8
<211> 21
<212> PRT
<213> Homo sapiens

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Ile Leu Trp Thr Cys Leu Gly Leu Ser Leu Ile Ile Ser Leu Ala Val
1 5 10 15

Phe Val Leu Met Phe
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<210> 9
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<212> PRT
<213> Homo sapiens

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Met Ala Gly Gln Cys Ser Gln Asn Glu Tyr Phe Asp Ser Leu Leu His
1 5 10 15

Ala Cys Ile Pro Cys Gln Leu Arg Cys Ser Ser Asn Thr Pro Pro Leu
20 25 30

Thr Cys Gln Arg Tyr Cys Asn Ala Ser Val Thr Asn Ser Val Lys Gly
35 40 45

Thr Asn Ala Gly Gly Gly Gly Asp Lys Thr His Thr Cys Pro Pro
50 55 60

Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro
65 70 75 80

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Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr
85 90 95

Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn
100 105 110

Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg
115 120 125

Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val
130 135 140

Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser
145 150 155 160

Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys
165 170 175

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp
180 185 190

Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe
195 200 205

Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu
210 215 220

Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe
225 230 235 240

Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly
245 250 255

Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
260 265 270

Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
275 280

<210> 10
<211> 281
<212> PRT
<213> Mus musculus

<400> 10

Met Ala Gln Gln Cys Phe His Ser Glu Tyr Phe Asp Ser Leu Leu His
1 5 10 15

Ala Cys Lys Pro Cys His Leu Arg Cys Ser Asn Pro Pro Ala Thr Cys
20 25 30

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Gln Pro Tyr Cys Asp Pro Ser Val Thr Ser Ser Val Lys Gly Ser Tyr
35 40 45

Thr Gly Gly Gly Gly Asp Lys Thr His Thr Cys Pro Pro Cys Pro
50 55 60

Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys
65 70 75 80

Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val
85 90 95

Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr
100 105 110

Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
115 120 125

Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His
130 135 140

Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
145 150 155 160

Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln
165 170 175

Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu
180 185 190

Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro
195 200 205

Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn
210 215 220

Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu
225 230 235 240

Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val
245 250 255

Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln
260 265 270

Lys Ser Leu Ser Leu Ser Pro Gly Lys
275 280

<210> 11
<211> 185
<212> PRT

<213> Murine

<400> 11

Met	Ala	Gln	Gln	Cys	Phe	His	Ser	Glu	Tyr	Phe	Asp	Ser	Leu	Leu	His
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Ala	Cys	Lys	Pro	Cys	His	Leu	Arg	Cys	Ser	Asn	Pro	Pro	Ala	Thr	Cys
					20			25					30		

Gln	Pro	Tyr	Cys	Asp	Pro	Ser	Val	Thr	Ser	Ser	Val	Lys	Gly	Thr	Tyr
		35				40						45			

Thr	Val	Leu	Trp	Ile	Phe	Leu	Gly	Leu	Thr	Leu	Val	Leu	Ser	Leu	Ala
				50				55			60				

Leu	Phe	Thr	Ile	Ser	Phe	Leu	Leu	Arg	Lys	Met	Asn	Pro	Glu	Ala	Leu
				65				70		75			80		

Lys	Asp	Glu	Pro	Gln	Ser	Pro	Gly	Gln	Leu	Asp	Gly	Ser	Ala	Gln	Leu
				85				90					95		

Asp	Lys	Ala	Asp	Thr	Glu	Leu	Thr	Arg	Ile	Arg	Ala	Gly	Asp	Asp	Arg
				100				105				110			

Ile	Phe	Pro	Arg	Ser	Leu	Glu	Tyr	Thr	Val	Glu	Glu	Cys	Thr	Cys	Glu
				115			120					125			

Asp	Cys	Val	Lys	Ser	Lys	Pro	Lys	Gly	Asp	Ser	Asp	His	Phe	Phe	Pro
				130			135					140			

Leu	Pro	Ala	Met	Glu	Glu	Gly	Ala	Thr	Ile	Leu	Val	Thr	Thr	Lys	Thr
				145				150			155			160	

Gly	Asp	Tyr	Gly	Lys	Ser	Ser	Val	Pro	Thr	Ala	Leu	Gln	Ser	Val	Met
				165				170				175			

Gly	Met	Glu	Lys	Pro	Thr	His	Thr	Arg
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<212> PRT

<213> human-murine Consensus

<400> 12

Met	Ala	Gln	Cys	Glu	Tyr	Phe	Asp	Ser	Leu	Leu	His	Ala	Cys	Pro	Cys
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Leu	Arg	Cys	Ser	Pro	Pro	Thr	Cys	Gln	Tyr	Cys	Ser	Val	Thr	Ser	Val
				20				25				30			

Lys	Gly	Thr	Leu	Trp	Leu	Gly	Leu	Leu	Ser	Leu	Ala	Phe	Phe	Leu	Leu

35

40

45

Arg Lys Glu Leu Lys Asp Glu Gly Ser Leu Ala Leu Arg Gly Asp Ile
 50 55 60

Pro Arg Leu Glu Tyr Thr Val Glu Glu Cys Thr Cys Glu Asp Cys Lys
 65 70 75 80

Ser Lys Pro Lys Asp Ser Asp His Phe Pro Leu Pro Ala Met Glu Glu
 85 90 95

Gly Ala Thr Ile Leu Val Thr Thr Lys Thr Asp Tyr Lys Ser Pro Ala
 100 105 110

Leu Ser Glu Lys Arg
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<210> 13
 <211> 81
 <212> PRT
 <213> Consensus

<400> 13

Cys Ser Gln Asn Glu Tyr Phe Asp Ser Leu Leu His Ala Cys Ile Pro
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Cys Gln Leu Arg Cys Ser Ser Asn Thr Pro Pro Leu Thr Cys Gln Arg
 20 25 30

Tyr Cys Cys Glu Tyr Phe Asp Ser Leu Leu His Ala Cys Pro Cys Leu
 35 40 45

Arg Cys Ser Pro Pro Thr Cys Gln Tyr Cys Cys Phe His Ser Glu Tyr
 50 55 60

Phe Asp Ser Leu Leu His Ala Cys Pro Pro Ala Thr Cys Gln Pro Tyr
 65 70 75 80

Cys

<210> 14
 <211> 293
 <212> PRT
 <213> Homo sapiens

<400> 14

Met Ser Gly Leu Gly Arg Ser Arg Arg Gly Gly Arg Ser Arg Val Asp
 1 5 10 15

Gln Glu Glu Arg Phe Pro Gln Gly Leu Trp Thr Gly Val Ala Met Arg
 20 25 30

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Ser Cys Pro Glu Glu Gln Tyr Trp Asp Pro Leu Leu Gly Thr Cys Met
35 40 45

Ser Cys Lys Thr Ile Cys Asn His Gln Ser Gln Arg Thr Cys Ala Ala
50 55 60

Phe Cys Arg Ser Leu Ser Cys Arg Lys Glu Gln Gly Lys Phe Tyr Asp
65 70 75 80

His Leu Leu Arg Asp Cys Ile Ser Cys Ala Ser Ile Cys Gly Gln His
85 90 95

Pro Lys Gln Cys Ala Tyr Phe Cys Glu Asn Lys Leu Arg Ser Pro Val
100 105 110

Asn Leu Pro Pro Glu Leu Arg Arg Gln Arg Ser Gly Glu Val Glu Asn
115 120 125

Asn Ser Asp Asn Ser Gly Arg Tyr Gln Gly Leu Glu His Arg Gly Ser
130 135 140

Glu Ala Ser Pro Ala Leu Pro Gly Leu Lys Leu Ser Ala Asp Gln Val
145 150 155 160

Ala Leu Val Tyr Ser Thr Leu Gly Leu Cys Leu Cys Ala Val Leu Cys
165 170 175

Cys Phe Leu Val Ala Val Ala Cys Phe Leu Lys Lys Arg Gly Asp Pro
180 185 190

Cys Ser Cys Gln Pro Arg Ser Arg Pro Arg Gln Ser Pro Ala Lys Ser
195 200 205

Ser Gln Asp His Ala Met Glu Ala Gly Ser Pro Val Ser Thr Ser Pro
210 215 220

Glu Pro Val Glu Thr Cys Ser Phe Cys Phe Pro Glu Cys Arg Ala Pro
225 230 235 240

Thr Gln Glu Ser Ala Val Thr Pro ⁹Gly Thr Pro Asp Pro Thr Cys Ala
245 250 255

Gly Arg Trp Gly Cys His Thr Arg Thr Thr Val Leu Gln Pro Cys Pro
260 265 270

His Ile Pro Asp Ser Gly Leu Gly Ile Val Cys Val Pro Ala Gln Glu
275 280 285

Gly Gly Pro Gly Ala
290

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<210> 15
<211> 166
<212> PRT
<213> Homo sapiens

<400> 15

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Gln Glu Glu Arg Phe Pro Gln Gly Leu Trp Thr Gly Val Ala Met Arg
20 25 30

Ser Cys Pro Glu Glu Gln Tyr Trp Asp Pro Leu Leu Gly Thr Cys Met
35 40 45

Ser Cys Lys Thr Ile Cys Asn His Gln Ser Gln Arg Thr Cys Ala Ala
50 55 60

Phe Cys Arg Ser Leu Ser Cys Arg Lys Glu Gln Gly Lys Phe Tyr Asp
65 70 75 80

His Leu Leu Arg Asp Cys Ile Ser Cys Ala Ser Ile Cys Gly Gln His
85 90 95

Pro Lys Gln Cys Ala Tyr Phe Cys Glu Asn Lys Leu Arg Ser Pro Val
100 105 110

Asn Leu Pro Pro Glu Leu Arg Arg Gln Arg Ser Gly Glu Val Glu Asn
115 120 125

Asn Ser Asp Asn Ser Gly Arg Tyr Gln Gly Leu Glu His Arg Gly Ser
130 135 140

Glu Ala Ser Pro Ala Leu Pro Gly Leu Lys Leu Ser Ala Asp Gln Val
145 150 155 160

Ala Leu Val Tyr Ser Thr
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<210> 16
<211> 67
<212> PRT
<213> Homo sapiens

<400> 16

Cys Pro Glu Glu Gln Tyr Trp Asp Pro Leu Leu Gly Thr Cys Met Ser
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Cys Lys Thr Ile Cys Asn His Gln Ser Gln Arg Thr Cys Ala Ala Phe
20 25 30

Cys Cys Arg Lys Glu Gln Gly Lys Phe Tyr Asp His Leu Leu Arg Asp
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35

40

45

Cys Ile Ser Cys Ala Ser Ile Cys Gly Gln His Pro Lys Gln Cys Ala
 50 55 60

Tyr Phe Cys
 65

<210> 17
 <211> 20
 <212> PRT
 <213> Homo sapiens
 <400> 17

Leu Gly Leu Cys Leu Cys Ala Val Leu Cys Cys Phe Leu Val Ala Val
 1 5 10 15

Ala Cys Phe Leu
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<210> 18
 <211> 397
 <212> PRT
 <213> Homo sapiens
 <400> 18

Met Ser Gly Leu Gly Arg Ser Arg Arg Gly Gly Arg Ser Arg Val Asp
 1 5 10 15

Gln Glu Glu Arg Phe Pro Gln Gly Leu Trp Thr Gly Val Ala Met Arg
 20 25 30

Ser Cys Pro Glu Glu Gln Tyr Trp Asp Pro Leu Leu Gly Thr Cys Met
 35 40 45

Ser Cys Lys Thr Ile Cys Asn His Gln Ser Gln Arg Thr Cys Ala Ala
 50 55 60

Phe Cys Arg Ser Leu Ser Cys Arg Lys Glu Gln Gly Lys Phe Tyr Asp
 65 70 75 80

His Leu Leu Arg Asp Cys Ile Ser Cys Ala Ser Ile Cys Gly Gln His
 85 90 95

Pro Lys Gln Cys Ala Tyr Phe Cys Glu Asn Lys Leu Arg Ser Pro Val
 100 105 110

Asn Leu Pro Pro Glu Leu Arg Arg Gln Arg Ser Gly Glu Val Glu Asn
 115 120 125

Asn Ser Asp Asn Ser Gly Arg Tyr Gln Gly Leu Glu His Arg Gly Ser
 130 135 140

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Glu Ala Ser Pro Ala Leu Pro Gly Leu Lys Leu Ser Ala Asp Gln Val
145 150 155 160

Ala Leu Val Tyr Ser Gly Gly Gly Asp Lys Thr His Thr Cys
165 170 175

Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu
180 185 190

Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu
195 200 205

Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys
210 215 220

Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys
225 230 235 240

Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu
245 250 255

Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys
260 265 270

Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys
275 280 285

Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser
290 295 300

Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys
305 310 315 320

Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln
325 330 335

Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly
340 345 350

Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln
355 360 365

Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn
370 375 380

His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
385 390 395

<210> 19
<211> 149
<212> PRT

A-686B.ST25.txt

<213> Mus musculus

<400> 19

Met Asp Tyr Lys Asp Asp Asp Lys Lys His Lys Lys Lys His Ser
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Val Leu His Leu Val Pro Val Asn Ile Thr Ser Lys Asp Ser Asp Val
20 25 30

Thr Glu Val Met Trp Gln Pro Val Leu Arg Arg Gly Arg Gly Leu Glu
35 40 45

Ala Gln Gly Asp Ile Val Arg Val Trp Asp Thr Gly Ile Tyr Leu Leu
50 55 60

Tyr Ser Gln Val Leu Phe His Asp Val Thr Phe Thr Met Gly Gln Val
65 70 75 80

Val Ser Arg Glu Gly Gln Gly Arg Arg Glu Thr Leu Phe Arg Cys Ile
85 90 95

Arg Ser Met Pro Ser Asp Pro Asp Arg Ala Tyr Asn Ser Cys Tyr Ser
100 105 110

Ala Gly Val Phe His Leu His Gln Gly Asp Ile Ile Thr Val Lys Ile
115 120 125

Pro Arg Ala Asn Ala Lys Leu Ser Leu Ser Pro His Gly Thr Phe Leu
130 135 140

Gly Phe Val Lys Leu
145

<210> 20

<211> 59

<212> PRT

<213> Homo sapiens

<400> 20

Cys Pro Glu Glu Gln Tyr Trp Asp Pro Leu Leu Gly Thr Cys Met Ser
1 5 10 15

Cys Lys Thr Ile Cys Asn His Gln Ser Gln Arg Thr Cys Ala Ala Phe
20 25 30

Cys Arg Ser Leu Ser Cys Arg Lys Glu Gln Gly Lys Phe Tyr Asp His
35 40 45

Leu Leu Arg Asp Cys Ile Ser Cys Ala Ser Ile
50 55

<210> 21

A-686B.ST25.txt

<211> 58
<212> PRT
<213> Homo sapiens

<400> 21

Cys Ser Gln Asn Glu Tyr Phe Asp Ser Leu Leu His Ala Cys Ile Pro
1 5 10 15

Cys Gln Leu Arg Cys Ser Ser Asn Thr Pro Pro Leu Thr Cys Gln Arg
20 25 30

Tyr Cys Asn Ala Ser Val Thr Asn Ser Val Lys Gly Thr Asn Ala Ile
35 40 45

Leu Trp Thr Cys Leu Gly Leu Ser Leu Ile
50 55

<210> 22
<211> 233
<212> PRT
<213> Homo sapiens

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<221> misc_feature
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<223> Xaa is any amino acid

<400> 22

Met Gly Gly Pro Val Arg Glu Pro Ala Leu Ser Val Ala Leu Trp Leu
1 5 10 15

Ser Trp Gly Ala Ala Leu Gly Ala Val Ala Cys Ala Met Ala Leu Leu
20 25 30

Thr Gln Gln Thr Glu Leu Gln Ser Leu Arg Arg Glu Val Ser Arg Leu
35 40 45

Gln Gly Thr Gly Gly Pro Ser Gln Asn Gly Glu Gly Tyr Pro Trp Gln
50 55 60

Ser Leu Pro Glu Gln Ser Ser Asp Ala Leu Glu Ala Trp Glu Xaa Gly
65 70 75 80

Glu Arg Ser Arg Lys Arg Arg Ala Val Leu Thr Gln Lys Gln Lys Lys
85 90 95

Gln His Ser Val Leu His Leu Val Pro Ile Asn Ala Thr Ser Lys Asp
100 105 110

Asp Ser Asp Val Thr Glu Val Met Trp Gln Pro Ala Leu Arg Arg Gly
115 120 125

Arg Gly Leu Gln Ala Gln Gly Tyr Gly Val Arg Ile Gln Asp Ala Gly
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130

135

140

Val Tyr Leu Leu Tyr Ser Gln Val Leu Phe Gln Asp Val Thr Phe Thr
 145 150 155 160

Met Gly Gln Val Val Ser Arg Glu Gly Gln Gly Arg Gln Glu Thr Leu
 165 170 175

Phe Arg Cys Ile Arg Ser Met Pro Ser His Pro Asp Arg Ala Tyr Asn
 180 185 190

Ser Cys Tyr Ser Ala Gly Val Phe His Leu His Gln Gly Asp Ile Leu
 195 200 205

Ser Val Ile Ile Pro Arg Ala Arg Ala Lys Leu Asn Leu Ser Pro His
 210 215 220

Gly Thr Phe Leu Gly Phe Val Lys Leu
 225 230

<210> 23
 <211> 232
 <212> PRT
 <213> Mus musculus

<400> 23

Met Gly Gly Ser Val Arg Glu Pro Ala Leu Ser Val Ala Leu Trp Leu
 1 5 10 15

Ser Trp Gly Ala Val Leu Gly Ala Val Thr Cys Ala Val Ala Leu Leu
 20 25 30

Ile Gln Gln Thr Glu Leu Gln Ser Leu Arg Arg Glu Val Ser Arg Leu
 35 40 45

Gln Arg Ser Gly Gly Pro Ser Gln Lys Gln Gly Glu Arg Pro Trp Gln
 50 55 60

Ser Leu Trp Glu Gln Ser Pro Asp Val Leu Glu Ala Trp Lys Asp Gly
 65 70 75 80

Ala Lys Ser Arg Arg Arg Ala Val Leu Thr Gln Lys His Lys Lys
 85 90 95

Lys His Ser Val Leu His Leu Val Pro Val Asn Ile Thr Ser Lys Asp
 100 105 110

Ser Asp Val Thr Glu Val Met Trp Gln Pro Val Leu Arg Arg Gly Arg
 115 120 125

Gly Pro Gly Gly Gln Gly Asp Ile Val Arg Val Trp Asp Thr Gly Ile
 130 135 140

Tyr Leu Leu Tyr Ser Gln Val Leu Phe His Asp Val Thr Phe Thr Met
145 150 155 160

Gly Gln Val Val Ser Arg Glu Gly Gln Gly Arg Arg Glu Thr Leu Phe
165 170 175

Arg Cys Ile Arg Ser Met Pro Ser Asp Pro Asp Arg Ala Tyr Asn Ser
180 185 190

Cys Tyr Ser Ala Gly Val Phe His Leu His Gln Gly Asp Ile Ile Thr
195 200 205

Val Lys Ile Pro Arg Ala Asn Ala Lys Leu Ser Leu Ser Pro His Gly
210 215 220

Thr Phe Leu Gly Phe Val Lys Leu
225 230

<210> 24
<211> 190
<212> PRT
<213> Consensus

<400> 24

Met Gly Gly Val Arg Glu Pro Ala Leu Ser Val Ala Leu Trp Leu Ser
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Trp Gly Ala Leu Gly Ala Val Cys Ala Ala Leu Leu Gln Gln Thr Glu
20 25 30

Leu Gln Ser Leu Arg Arg Glu Val Ser Arg Leu Gln Gly Gly Pro Ser
35 40 45

Gln Pro Trp Gln Ser Leu Glu Gln Ser Asp Leu Glu Ala Trp Gly Ser
50 55 60

Arg Arg Arg Ala Val Leu Thr Gln Lys Lys Lys His Ser Val Leu His
65 70 75 80

Leu Val Pro Asn Thr Ser Lys Asp Ser Asp Val Thr Glu Val Met Trp
85 90 95

Gln Pro Leu Arg Arg Gly Arg Gly Gln Gly Val Arg Asp Gly Tyr Leu
100 105 110

Leu Tyr Ser Gln Val Leu Phe Asp Val Thr Phe Thr Met Gly Gln Val
115 120 125

Val Ser Arg Glu Gly Gln Gly Arg Glu Thr Leu Phe Arg Cys Ile Arg
130 135 140

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Ser Met Pro Ser Pro Asp Arg Ala Tyr Asn Ser Cys Tyr Ser Ala Gly
145 150 155 160

Val Phe His Leu His Gln Gly Asp Ile Val Ile Pro Arg Ala Ala Lys
165 170 175

Leu Leu Ser Pro His Gly Thr Phe Leu Gly Phe Val Lys Leu
180 185 190

<210> 25
<211> 26
<212> DNA
<213> Mus musculus

<400> 25
cacaataacct gtggccctct taagag

26

<210> 26
<211> 26
<212> DNA
<213> Antisense

<400> 26
tggtaaacgg tcatcctaac gacatc

26

<210> 27
<211> 24
<212> DNA
<213> Homo sapiens

<400> 27
ttacttgtcc ttccaggctg ttct

24

<210> 28
<211> 25
<212> DNA
<213> Antisense

<400> 28
catagaaaacc aaggaagtgg ctacc

25

<210> 29
<211> 26
<212> DNA
<213> Homo sapiens

<400> 29
agcatcctga gtaatgagtg gcctgg

26

<210> 30
<211> 27
<212> DNA
<213> Antisense

<400> 30
gtgatgacga cctacagctg cactggg

27

<210> 31

<211> 394
 <212> PRT
 <213> Homo sapiens

<400> 31

Met Glu Trp Ser Trp Val Phe Leu Phe Phe Leu Ser Val Thr Thr Gly
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Val His Ser Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu
 20 25 30

Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp
 35 40 45

Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp
 50 55 60

Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly
 65 70 75 80

Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn
 85 90 95

Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp
 100 105 110

Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro
 115 120 125

Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu
 130 135 140

Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn
 145 150 155 160

Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile
 165 170 175

Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr
 180 185 190

Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys
 195 200 205

Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys
 210 215 220 225

Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu
 225 230 235 240

Ser Leu Ser Pro Gly Lys Ser Arg Ala Val Leu Thr Gln Lys Gln Lys
 245 250 255

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Lys Gln His Ser Val Leu His Leu Val Pro Ile Asn Ala Thr Ser Lys
260 265 270

Asp Asp Ser Asp Val Thr Glu Val Met Trp Gln Pro Ala Leu Arg Arg
275 280 285

Gly Arg Gly Leu Gln Ala Gln Gly Tyr Gly Val Arg Ile Gln Asp Ala
290 295 300

Gly Val Tyr Leu Leu Tyr Ser Gln Val Leu Phe Gln Asp Val Thr Phe
305 310 315 320

Thr Met Gly Gln Val Val Ser Arg Glu Gly Gln Gly Arg Gln Glu Thr
325 330 335

Leu Phe Arg Cys Ile Arg Ser Met Pro Ser His Pro Asp Arg Ala Tyr
340 345 350

Asn Ser Cys Tyr Ser Ala Gly Val Phe His Leu His Gln Gly Asp Ile
355 360 365

Leu Ser Val Ile Ile Pro Arg Ala Arg Ala Lys Leu Asn Leu Ser Pro
370 375 380

His Gly Thr Phe Leu Gly Phe Val Lys Leu
385 390